

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 2

**CURRENT STATUS OF ALL CLAIMS**

1. (Previously amended) An isolated nucleic acid molecule encoding a NB-ARC and CARD containing protein (NAC), comprising a nucleotide sequence encoding a polypeptide having at least 80% identity to SEQ ID NO:4 or SEQ ID NO:6, or the complement of said nucleotide sequence,

wherein said polypeptide forms a CARD domain fold,

wherein said polypeptide comprises an NB-ARC domain capable of associating with the NB-ARC domain of SEQ ID NO:2,

wherein said polypeptide does not comprise amino acids 957-987 of SEQ ID NO:2, and

wherein said polypeptide associates with SEQ ID NO:2 or with Apaf-1.

Claims 2 and 3. Canceled.

4. (Previously amended) An isolated nucleic acid molecule encoding a NB-ARC and CARD containing protein (NAC), comprising a nucleotide sequence set forth in either of SEQ ID NOs:3 or 5.

5. (Previously amended) The nucleic acid molecule of either claim 1 or claim 71, wherein said nucleic acid molecule is cDNA.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 3

6. (Previously amended) A vector containing the nucleic acid molecule of either claim 1 or claim 71.

7. (Previously amended) Recombinant cells containing the nucleic acid molecule of either claim 1 or claim 71.

8. (Previously amended) An oligonucleotide consisting of at least 500 contiguous nucleotides up to 1035 contiguous nucleotides of the nucleotide sequence set forth in any of SEQ ID Nos: 1, 3 and 5 or the complement of said nucleotide sequence, and a nucleotide sequence at the 5' or 3' end that differs from the nucleotide sequence set forth in any of SEQ ID Nos: 1, 3 and 5 or the complement of said nucleotide sequence.

9. (Previously amended) The oligonucleotide of any of claims 8, 77, 78, 79, 80, 81 or 82, wherein said oligonucleotide is labeled with a detectable marker.

Claim 10. Canceled.

11. (Previously amended) A kit for detecting the presence of a NAC nucleotide sequence comprising at least one oligonucleotide according to claim 9.

Claims 12 to 17. Canceled.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 4

18. (Original) A method for expression of a NAC protein, said method comprising culturing cells of claim 7 under conditions suitable for expression of said NAC.

Claims 19 to 26. Canceled.

27. (Previously amended) A method for identifying a nucleic acid molecule encoding a mammalian NAC, said method comprising:

contacting a sample containing nucleic acid molecules with the oligonucleotide of any one of claims 77, 78, 79, 80, 81 or 82, wherein said contacting is effected under high stringency hybridization conditions, and identifying a nucleic acid molecule that hybridizes thereto, wherein said nucleic acid molecule encodes a mammalian NAC polypeptide that associates with SEQ ID NO:2 or with Apaf-1.

Claims 28 to 38. Canceled.

Claim 39. Currently cancelled.

Claims 40 to 65. Canceled.

66. (Previously added and amended) A functional fragment of the nucleic acid molecule of either claim 1 or claim 71, wherein said functional fragment comprises a nucleotide sequence encoding a CARD domain corresponding to amino acids 1373-1473 of SEQ ID NO:2, and wherein said functional fragment associates with SEQ ID NO:2 or with Apaf-1.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 5

67. (Previously added) The nucleic acid molecule of claim 1, comprising a nucleotide sequence encoding a polypeptide having at least 95% identity to SEQ ID NO:4 or 6.

68. (Previously added) The nucleic acid molecule of claim 1, comprising a nucleotide sequence encoding amino acids 1373-1473 of SEQ ID NO:2.

69. (Previously added) The nucleic acid molecule of claim 1, comprising a nucleotide sequence encoding amino acids 329-547 of SEQ ID NO:2.

70. (Previously added and amended) An isolated nucleic acid molecule encoding a NB-ARC and CARD containing protein (NAC), comprising a nucleotide sequence encoding SEQ ID NO:4 or 6.

71. (Previously added and amended) An isolated nucleic acid molecule encoding a NAC, comprising a nucleotide sequence encoding a polypeptide having at least 80% identity to SEQ ID NO:2, or the complement of said nucleotide sequence,

wherein said polypeptide comprises amino acids 1262-1305 of SEQ ID NO:2,

wherein said polypeptide forms a CARD domain fold,

wherein said polypeptide comprises an NB-ARC domain capable of associating with the NB-ARC domain of SEQ ID NO:2, and

wherein said polypeptide associates with SEQ ID NO:2 or with Apaf-1.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 6

72. (Previously added) The nucleic acid molecule of claim 71, comprising a nucleotide sequence encoding a polypeptide having at least 95% identity to SEQ ID NO:2.

73. (Previously added) The nucleic acid molecule of claim 71, comprising a nucleotide sequence encoding amino acids 1373-1473 of SEQ ID NO:2.

74. (Previously added) The nucleic acid molecule of claim 71, comprising a nucleotide sequence encoding amino acids 329-547 of SEQ ID NO:2.

75. (Previously added and amended) An isolated nucleic acid molecule encoding a NB-ARC and CARD containing protein (NAC), comprising a nucleotide sequence encoding SEQ ID NO:2.

76. (Previously added) The nucleic acid molecule of claim 71, wherein the nucleotide sequence of said nucleic acid molecule is the same as that set forth in SEQ ID NO:1.

77. (Previously added and amended) An oligonucleotide comprising a nucleotide sequence consisting of nucleotides 985-1641 of SEQ ID NO:1 or its complement, or a fragment thereof consisting of at least 500 contiguous nucleotides therefrom, and a nucleotide sequence at the 5' or 3' end that differs from SEQ ID NO:1 or its complement.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 7

78. (Previously added and amended) An oligonucleotide comprising a nucleotide sequence consisting of nucleotides 2422-2844 of SEQ ID NO:1 or its complement, or a fragment thereof consisting of at least 20 contiguous nucleotides therefrom, and a nucleotide sequence at the 5' or 3' end that differs from SEQ ID NO:1 or its complement.

79. (Previously added and amended) An oligonucleotide comprising a nucleotide sequence consisting of nucleotides 3235-3960 of SEQ ID NO:1 or its complement, and a nucleotide sequence at the 5' or 3' end that differs from SEQ ID NO:1 or its complement.

80. (Previously added and amended) An oligonucleotide comprising a nucleotide sequence consisting of nucleotides 2870-2959 of SEQ ID NO:1 or its complement, and a nucleotide sequence at the 5' or 3' end that differs from SEQ ID NO:1 or its complement.

81. (Previously added and amended) An oligonucleotide comprising a nucleotide sequence consisting of nucleotides 4117-4419 of SEQ ID NO:1 or its complement, and a nucleotide sequence at the 5' or 3' end that differs from SEQ ID NO:1 or its complement.

82. (Previously added and amended) An oligonucleotide comprising at least 100 contiguous nucleotides of the nucleotide sequence set forth as nucleotides 3784-3915 of SEQ ID NO:1 or its complement.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 8

Claims 83 to 85. Currently cancelled.

86. (Previously added) A functional fragment of the nucleic acid molecule of either claim 1 or claim 71, wherein said functional fragment comprises a nucleotide sequence encoding a NB-ARC domain corresponding to amino acids 329-547 of SEQ ID NO:2, and wherein said functional fragment associates with SEQ ID NO:2.

Claim 87. Currently cancelled.

88. (Currently amended) The oligonucleotide of claim 82, comprising at least [[30]] 200 contiguous nucleotides.

89. (Previously added) The nucleic acid molecule of claim 4, wherein said nucleic acid molecule is cDNA.

90. (Previously added) A vector containing the nucleic acid molecule of claim 89.

91. (Previously added) Recombinant cells containing the nucleic acid molecule of claim 4.

92. (Previously added) A method for expression of a NAC protein, said method comprising culturing cells of claim 91 under conditions suitable for expression of said NAC.

Claim 93. Currently cancelled.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 9

94. (Previously added) The nucleic acid molecule of claim 70 or 75, wherein said nucleic acid molecule is cDNA.

95. (Previously added) A vector containing the nucleic acid molecule of claim 94.

96. (Previously added) Recombinant cells containing the nucleic acid molecule of claim 94.

97. (Previously added) A method for expression of a NAC protein, said method comprising culturing cells of claim 96 under conditions suitable for expression of said NAC.

Claim 98. Currently cancelled.

99. (Previously added) A functional fragment of an isolated nucleic acid molecule encoding a NB-ARC and CARD containing protein (NAC), comprising a nucleotide sequence set forth in either of SEQ ID NOs:3 or 5, wherein said functional fragment comprises a nucleotide sequence encoding a CARD domain corresponding to amino acids 1128-1261 and 1306-1473 of SEQ ID NO:2, and wherein said functional fragment associates with SEQ ID NO:2 or with Apaf-1.

100. (Previously added) An oligonucleotide consisting of the nucleotide sequence set forth as nucleotides 985-1641 of SEQ ID NO:1 or its complement, or a fragment thereof consisting of at least 500 contiguous nucleotides therefrom.

Inventors: John C. Reed  
Serial No.: 09/388,221  
Filed: September 1, 1999  
Page 10

101. (Previously added) An oligonucleotide consisting of the nucleotide sequence set forth as nucleotides 2422-2844 of SEQ ID NO:1 or its complement.

102. (Previously added) An oligonucleotide consisting of the nucleotide sequence set forth as nucleotides 3235-3960 of SEQ ID NO:1 or its complement.

103. (Previously added) An oligonucleotide consisting of the nucleotide sequence set forth as nucleotides 2870-2959 of SEQ ID NO:1 or its complement.

104. (Previously added) An oligonucleotide consisting of the nucleotide sequence set forth as nucleotides 4117-4419 of SEQ ID NO:1 or its complement.

105. (Currently added) An oligonucleotide comprising a nucleotide sequence consisting of nucleotides 2422-2844 of SEQ ID NO:1 or its complement, or a fragment thereof consisting of at least 30 contiguous nucleotides therefrom, and a nucleotide sequence at the 5' or 3' end that differs from SEQ ID NO:1 or its complement.